Title (en)

LOW RESISTIVITY AND SUSTAINED WETTABILITY BATTERY SEPARATORS

Title (de)

BATTERIESEPARATOREN MIT NIEDRIGEM WIDERSTAND UND VERZÖGERTER BENETZBARKEIT

Title (fr)

SÉPARATEURS D'ACCUMULATEUR PRÉSENTANT UNE FAIBLE RÉSISTIVITÉ ET UNE MOUILLABILITÉ SOUTENUE

Publication

EP 2973780 A4 20161109 (EN)

Application

EP 14767863 A 20140313

Priority

- US 201361792631 P 20130315
- US 201361868478 P 20130821
- US 2014026780 W 20140313

Abstract (en)

[origin: WO2014151991A1] A lead-acid battery separator with ultralow resistivity results from high porosity, controlled pore (10) size distribution, and an ionic surfactant (14) with a long alkyl side chain (18) that is anchored to the polymer matrix (12) of a silica-filled polyethylene separator. The surfactant cannot be easily removed or washed away and thereby imparts sustained wettability to the separator. Controlling the number of, and volume occupied by, the pores (i.e., porosity) and pore size distribution of the separator contributes to a reduction in electrical (ionic) resistivity.

IPC 8 full level

B29C 47/00 (2006.01); **B29C 71/00** (2006.01); **B32B 5/22** (2006.01); **H01M 50/406** (2021.01); **H01M 50/417** (2021.01); **H01M 50/434** (2021.01); **H01M 50/491** (2021.01); B29K 23/00 (2006.01); B29K 105/16 (2006.01); B29K 509/00 (2006.01); B29L 7/00 (2006.01); B29L 31/34 (2006.01); H01M 10/06 (2006.01); H01M 50/403 (2021.01)

CPC (source: EP US)

B29C 48/08 (2019.01 - EP US); **B29C 71/0009** (2013.01 - US); **H01M 50/406** (2021.01 - EP US); **H01M 50/417** (2021.01 - EP US); **H01M 50/434** (2021.01 - EP US); **H01M 50/44** (2021.01 - EP US); **H01M 50/446** (2021.01 - US); **H01M 50/491** (2021.01 - EP US); B29C 2071/0027 (2013.01 - US); B29K 2023/0683 (2013.01 - US); B29K 2105/16 (2013.01 - US); B29K 2509/00 (2013.01 - US); B29K 2995/0003 (2013.01 - US); B29K 2995/0068 (2013.01 - US); B29K 2995/0081 (2013.01 - US); B29L 2007/008 (2013.01 - US); B29L 2031/3468 (2013.01 - US); H01M 10/06 (2013.01 - EP US); H01M 50/403 (2021.01 - EP US); H01M 2220/20 (2013.01 - EP US); Y02E 60/10 (2013.01 - EP US); Y02P 70/50 (2015.11 - US)

Citation (search report)

- No further relevant documents disclosed
- See references of WO 2014151991A1

Designated contracting state (EPC)

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DOCDB simple family (publication)

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DOCDB simple family (application)

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